IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of James MCCOY, et al.

Application No. 09/785,010

Attorney Docket No. 350176-991101 (Formerly A0647-991100

Filed: February 16, 2001

For: EFFICIENT INTERNET SERVICE COST RECOVERY SYSTEM AND METHOD

Group Art Unit: 3621

Examiner: Hayes, John W.

APPEAL BRIEF

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Cathy Pittman

Dear Sir/Madam:

This is a brief for an appeal from a Final Office Action dated January 9, 2006, and from a Notice of Appeal that was filed on July 7, 2006. This brief is being filed with a petition for a four month extension of time.

TABLE OF CONTENTS

I. REAL PARTIES IN INTEREST

The real parties in interest in this appeal are the two named inventors, James McCoy and Douglas Barnes.

II. RELATED APPEALS AND INTERFERENCES

Appellant is unaware of any related appeals or interferences.

III. STATUS OF THE CLAIMS

The application was originally filed with Claims 1-76. Claims 1-76 remain pending in this application. Claims 1-21, 23, and 39-76 have been withdrawn. Claims 22 and 24-38 stand rejected. This is an appeal of rejected Claims 22 and 24-38. Claims 1-76 are reproduced and attached in the Claims Appendix.

IV. STATUS OF AMENDMENTS

All offered amendments have been entered. The claims appear before the Board as they were withdrawn (Claims 1-21, 23, and 39-76) or finally rejected (Claims 22 and 24-38), and are attached in the Claims Appendix.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Claim 22 recites a distributed system for publishing and retrieving content in a network. *See, e.g., Appellant's Specification as filed at p. 4, ll. 1-2.* The system of Claim 22 further comprises a plurality of computer systems connected together in a peer-to-peer fashion. *See, e.g., id. at p. 4, ll. 2-3.* The computer systems have characterized network resources including any of disk space, bandwidth, and CPU cycles for performing peer-to-peer interactions across the network. *See, e.g., id. at p. 4, ll. 5-10.* The network resources can be contributed to the network by one or more contributing computer systems in return for a predetermined amount of credits. *See, e.g., id. at p. 4, ll. 5-8.* The credits are accumulated by the computer system contributing the network resources to the network. *See, e.g., id. at p. 4, ll. 5-9.* The contributing computer system can exchange the credits with other contributing computer systems for performing peer-to-peer interactions across the network using the network resources. *See, e.g., id. at p. 4, ll. 5-10.*

One or more agent applications are distributed across the network and associated with the computer systems. *See, e.g., id. at p. 4, ll. 2-4.* The agent applications allow the computer systems to publish content to, and retrieve content from, the network by initiating the peer-to-peer interactions across the network between the agent applications. *See, e.g., id. at p. 4, ll. 2-5.*

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection to be reviewed on appeal are as follows:

1) Claims 22 and 24-38 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,888,929 B1 to Saylor.

2) Claim 22 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the appellant regards as the invention.

VII. APPELLANT'S ARGUMENT

A. Claims 22 and 24-38 are patentable over Saylor.

The Examiner has rejected Claims 22 and 24-38 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,888,929 B1 to Saylor (hereinafter "Saylor"). *Office Action of Jan. 9, 2006 at p. 3.*

The Board should overturn these rejections because Saylor neither teaches nor suggests every element recited in each of the claims and because there is no motivation to modify the relevant teachings of Saylor to practice every element recited in each of the claims.

1. Saylor does not disclose contributing network resources to a network.

Claim 22, as amended, recites that "network resources can be contributed to the network by one or more contributing computer systems," where the network resources include "any of

disk space, bandwidth, and CPU cycles." Saylor does not disclose this claim element and the Examiner has not cited any evidence that shows otherwise.

Saylor discloses providing content to a voice network access provider (VNAP) and providing a VCode to a VNAP to access a VPage. *E.g., Saylor at 4:51-54* ("participants in the system may be permitted to create voice content to be presented in VPages ..."), *2:3-6* ("A user may access the content corresponding to the VCode by entering the VCode ..."). But Saylor does *not* disclose contributing network resources (e.g. disk space, bandwidth, and CPU cycles) to a network. The content provided to a VNAP in Saylor cannot be considered a network resource for purposes of the present application because the present application distinguishes between these two things: "[t]he invention also keeps track of which users provide *resources, content* and indexing services within the network ...." *Appellant's Specification as published, para. 11.* (emphasis added). Network resources in the present application allow "computer systems to publish and retrieve content from the network," but do not include the content itself. *Id. at para. 12.*

The Examiner has not cited any evidence that shows Saylor discloses contributing network resources to a network. In the Examiner's latest office action, he lists a string of citations to Saylor that supposedly disclose the entire first section of amended Claim 22. *Office Action of Jan. 9, 2006 at p. 3.* None of these portions of Saylor, however, disclose this claim element.

Saylor column 4, lines 50-55 merely disclose that a participant in the Saylor system may create content to be presented in VPages, as discussed above. Saylor column 5, lines 57-67 disclose that a VNAP may charge a user a fee to access content and that the fee may be distributed among different entities in the Saylor system. Saylor column 6, lines 8-22 disclose more details about fee sharing. Column 6 line 60 to column 7 line 10 discloses different ways of charging users for access to content. Column 7, lines 33-36 disclose paying referral fees for referring a user to another VNAP. Column 9, lines 23-28 disclose a simple example of fee sharing. Column 11, lines 58-65 disclose another example of fee sharing and a plurality of connected VNAPs. Column 34, lines 17-37 disclose more fee arrangements. Column 35 line 19 to column 36 line 9 discloses a credit-billing model and an embodiment with content reselling.

None of these citations, however, discloses contributing network resources to a network. Nor does the rest of Saylor.

Because Saylor does not disclose contributing network resources to a network, it does not anticipate Claim 22 or the claims that depend on Claim 22. Accordingly, the Board should overturn the § 103(a) rejection of the pending claims.

2. Saylor does not disclose earning credits by contributing network resources to a network.

Even if, *assuming arguendo*, Saylor did disclose contributing network resources to a network, it does not disclose earning credits by contributing network resources to a network. Claim 22, as amended, recites that "network resources can be contributed to the network by one or more contributing computer systems in return for a predetermined amount of credits," where the network resources include "any of disk space, bandwidth, and CPU cycles." Saylor does not disclose this claim element and the Examiner has not cited any evidence that shows otherwise.

Saylor discloses charging a user a fee to access content and sharing a portion of that fee with the content provider. *Saylor at 5:58-67.* In other words, Saylor discloses earning fees by providing content and having users access that content. As discussed above, content provided to a VNAP in Saylor cannot be considered a network resource for purposes of the present application because the present application distinguishes between these two things.

Saylor also discloses sharing fees with a "VCode display host entity," an entity that displays a VCode, such as a museum. *Id. at 6:1-20.* But displaying a VCode is distinct from contributing network resources such as disk space, bandwidth, and CPU cycles to a network, if only because a museum's VCode display at a museum exhibit is entirely detached from the VNAP system. The museum does not need access to, or even knowledge of, the VNAP system in order to display a VCode. Moreover, a VCode display cannot be used directly by the VNAP system in the same way that network resources such as disk space, bandwidth, and CPU cycles can be used directly by a network. Indeed, displaying a VCode causes more users to access the VNAP system, thus increasing the burden on the VNAP. Providing network resources to a network, by contrast, decreases the relative burden on the network.

The Examiner has not cited any evidence that shows Saylor discloses earning credits by contributing network resources to a network. The Examiner's string of Saylor citations, discussed above, refer to portions of Saylor that discuss variations on earning fees by providing content or displaying VCodes. For the reasons discussed above, these variations on earning fees do not disclose earning credits by contributing network resources to a network.

Because Saylor does not disclose earning credits by contributing network resources to a network, it does not anticipate Claim 22 or the claims that depend on Claim 22. Accordingly, the Board should overturn the § 103(a) rejection of the pending claims.

3. Saylor does not disclose a distributed system for publishing and retrieving content.

Claim 22, as amended, recites, "[a] distributed system for publishing and retrieving content in a network." A distributed system consist of a group of non-alike computers that are connected together by a network and equipped with corresponding software so that the computers can coordinate their activities in a common scheme. *Appellant's Specification as published, para. 41.* Saylor does not disclose this claim element and the Examiner has not cited any evidence that shows otherwise.

Saylor discloses one or more centralized databases or servers that are used for storing content and sending that content to the VNAP, which in turn sends the content to the user. *Saylor at Fig. 2, 2:21-23, 2:29-32, 6:8-10.* As an initial matter, the storage units, VNAP, and users are all separate elements that do not coordinate their activities in a common scheme. Therefore, the Saylor system as a whole is not a distributed system. Further, although Saylor may disclose multiple databases or servers, these storage units do not comprise a distributed system because they are made up of multiple instances of the same type of computer, not the heterogeneous computers of a distributed system. *See Saylor at Fig. 2.* In addition, the storage units cannot publish and retrieve content by themselves, they can only send VPages to the VNAP, which in turn sends the VPages to the user. The Examiner's string of Saylor citations, discussed above, do not cite to any portions of Saylor that disclose a distributed system for publishing and retrieving content. Thus, Saylor does not disclose such a distributed system.

Because Saylor does not disclose a distributed system for publishing and retrieving content, it does not anticipate Claim 22 or the claims that depend on Claim 22. Accordingly, the Board should overturn the § 103(a) rejection of the pending claims.

4. Saylor does not disclose publishing and retrieving content via peer-to-peer interactions.

Claim 22, as amended, recites, "[a] distributed system for publishing and retrieving content in a network comprising: ... performing peer-to-peer interactions across the network." Saylor does not disclose this claim element and the Examiner has not cited any evidence that shows otherwise.

Saylor discloses a *client-server* model of publishing and retrieving content, where a client (the user) calls or otherwise accesses a server (e.g. a VNAP) that stores VPages. *Saylor at 2:3-6, 2:22-23, 18:12-13.* Even if VPages are spread among different servers or VNAPs, the client-server model remains because the user must still access some server to access the desired VPage. Thus, users in Saylor cannot access VPages via other users, they must access a server or a VNAP. Moreover, these client-server interactions are controlled by the VNAP. For example, the VNAP may require a user to login before accessing content. *Id. at 16:41-43.* Thus, the VNAP is not a peer of the user. The Examiner's string of Saylor citations, discussed above, do not cite to any portions of Saylor that disclose peer-to-peer interactions. Thus, Saylor does not disclose publishing and retrieving content by performing peer-to-peer interactions.

Because Saylor does not disclose publishing and retrieving content via peer-to-peer interactions, it does not anticipate Claim 22 or the claims that depend on Claim 22. Accordingly, the Board should overturn the § 103(a) rejection of the pending claims.

5. Saylor does not disclose agent applications distributed across the network.

Claim 22, as amended, recites, "one or more agent applications distributed across the network ... for allowing the computer systems to publish content to and retrieve content from the network by initiating peer-to-peer interactions." Saylor does not disclose this claim element and the Examiner has not cited any evidence that shows otherwise.

As a preliminary matter, Saylor does not disclose this claim element because it does not disclose peer-to-peer interactions, as discussed above. Even if, *assuming arguendo*, Saylor did disclose peer-to-peer interactions, it still would not disclose the recited agent applications distributed across a network.

Saylor discloses a plurality of modules to enable delivery of content to users. *Saylor at 18:10-12.* These modules, however, are centralized at the VNAP, not distributed across the network. *Id. at Fig. 2.* For example, the VPage retrieval module 32 in Saylor, Figure 2 is centralized at the VNAP, not distributed throughout the network and not distributed to the users 14. None of the other modules in the VNAP are distributed throughout the network either. Thus, Saylor does not disclose agent applications distributed across a network.

The Examiner has not cited any evidence that shows Saylor discloses this claim element. In the Examiner's latest office action, he lists another string of citations to Saylor that supposedly disclose the entire second section of amended claim 22. *Office Action of Jan. 9, 2006 at p. 3.* None of these portions of Saylor, however, disclose this claim element.

Saylor column 5, lines 57-67 disclose that a VNAP may charge a user a fee to access content and that the fee may be distributed among different entities in the Saylor system. Column 6, line 60 to column 7, line 10 discloses another fee structure where a user pays a monthly fee, different fees are charged for different VCodes, and VCode providers are charged for access to a VNAP's users. Column 9, lines 23-28 disclose a simple example of fee sharing. Column 14, lines 25-41 disclose different types of information and statistics that might be stored in a VNAP database. Column 20, lines 10-21 disclose a billing module that enables fee distribution, but is not distributed and does not allow the VNAP to publish or retrieve content. Thus, none of these citations discloses agent applications distributed across a network. Nor does the rest of Saylor.

Because Saylor does not disclose agent applications distributed across a network, it does not anticipate Claim 22 or the claims that depend on Claim 22. Accordingly, the Board should overturn the § 103(a) rejection of the pending claims.

6. The Examiner has not overcome the deficiencies of Saylor because his obviousness argument has no evidentiary support.

In the Final Office Action of January 9, 2006, the Examiner admits that Saylor does not disclose the recited claim element, "any of disk space, bandwidth, and CPU cycles for performing peer-to-peer interactions across the network." *Office Action of Jan. 9, 2006 at pp. 3-4.* In an attempt to overcome this deficiency of Saylor, the Examiner summarily concludes that it would have been obvious to modify the teachings of Saylor to include this limitation. *Id. at p. 4.* But his conclusion has no evidentiary support in the record and therefore contravenes Federal Circuit precedent. *In re Zurko*, 258 F.3d 1379 (Fed. Cir. 2001). The Examiner's improper attempt to overcome the deficiencies of Saylor should be disregarded by the Board.

In order to support a rejection under §103, an Examiner must cite to objective evidence in the record. An examiner may not, because of doubt that the invention is patentable, resort to speculation, unfounded assumption, or hindsight reconstruction to supply deficiencies in the factual basis for the rejection. *See In re Warner,* 379 F.2d 1011, 1017, 154 USPQ 173, 177 (CCPA 1967), *cert. denied*, 389 U.S. 1057 (1968). Moreover, as the Manual of Patent Examining Procedure ("MPEP") warns, "[i]t would not be appropriate for the examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known. For example, assertions of technical facts in the areas of esoteric technology or specific knowledge of the prior art must always be supported by citation to some reference work recognized as standard in the pertinent art." MPEP § 2144.03 (emphasis in original). Further, "[i]t is never appropriate to rely solely on 'common knowledge' in the art without evidentiary support in the record, as the principal evidence upon which a rejection was based." *Id. citing In re Zurko*, 258 F.3d 1379, 1385, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001).

Despite these well established principles, the Examiner sets forth an obviousness rejection without evidentiary support in the record. Although the Examiner cites three arbitrary passages from Saylor, they are entirely unrelated to the claimed element, "any of disk space, bandwidth, and CPU cycles for performing peer-to-peer interactions across the network." *Office Action of Jan. 9, 2006 at p. 4.* Indeed, the Examiner makes no attempt to tie these citations to his

obviousness rejection. Column 1, lines 50-55 disclose using the World Wide Web via personal digital assistants. Column 4, lines 50-55 disclose a VPage creation module that is accessible over the Internet. Column 14, lines 10-25 disclose different types of input equipment (e.g., phones, personal digital assistants) and different types of communications networks (e.g. digital networks, cable networks). None of these passages, however, disclose "any of disk space, bandwidth, and CPU cycles for performing peer-to-peer interactions across the network." Peer-to-peer interactions are a specific type of interaction performed on a network. The mere disclosure of a network itself (or various types of networks) does not disclose any particular interaction performed on that network. Likewise, disk space, bandwidth, and CPU cycles are particular network resources that are not disclosed by the mere disclosure of a network itself.

Because the Examiner's obviousness rejection has no evidentiary support, it cannot be used to reject Claim 22 or the claims that depend on Claim 22. Accordingly, the Board should overturn the § 103(a) rejection of the pending claims.

7. The Examiner has provided no motivation to modify Saylor.

Even if, *assuming arguendo*, the claim element "any of disk space, bandwidth, and CPU cycles for performing peer-to-peer interactions across the network" had proper evidentiary support, the Examiner has provided no motivation to modify the teachings of Saylor to include this element.

It is well-settled that "a showing of a suggestion, teaching, or motivation to combine [or modify] the prior art references is an 'essential component of an obviousness holding.'" *C.R. Bard, Inc. v. M3 Systems, Inc.*, 157 F.3d 1340, 1352 (Fed. Cir. 1998). The Examiner can satisfy the burden of showing obviousness of the combination or modification "only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references." *In re Fritch*, 972 F.2d 1260, 1265 (Fed. Cir. 1992). A determination of obviousness cannot be based on the hindsight combination of components selectively culled from the prior art to fit the parameters of the patented invention. *ATD Corp. v. Lydall, Inc.*, 159 F.3d 534, 546 (Fed. Cir. 1998).

Here, the Examiner provides no motivation to modify the teachings of Saylor to include "any of disk space, bandwidth, and CPU cycles for performing peer-to-peer interactions across the network." Instead, the Examiner requires that the applicant explain why the recited claim element is unobvious: "the applicant has not disclosed that [the claim element] ... is unobvious to one of ordinary skill." *Office Action of Jan. 9, 2006 at p. 4.* This requirement again contravenes established patent examining procedures, which puts the initial burden of establishing a *prima facie* case of obviousness on the Examiner. MPEP § 2142.

Because the Examiner has not even attempted to provide a motivation to modify the Saylor reference, it cannot be used to reject Claim 22 or the claims that depend on Claim 22. Accordingly, the Board should overturn the § 103(a) rejection of the pending claims.

B. Claim 22 particularly points out and distinctly claims the subject matter which the appellant regards as the invention, as required by 35 U.S.C. § 112, second paragraph.

The Examiner has rejected Claim 22 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the appellant regards as the invention. Specifically, the Examiner has rejected the claim element "having characterized network resources including ..." as being vague and indefinite. *Office Action of Jan. 9, 2006 at p. 2.*

The Board should overturn this rejection because the scope of Claim 22 would be clear to a person possessing the ordinary level of skill in the pertinent art.

1. The record contains no basis for rejecting the claim element as indefinite.

As a preliminary matter, the MPEP instructs an Examiner who is making a rejection under 35 U.S.C. § 112, second paragraph, to provide "an analysis as to why the phrase(s) used in the claim is 'vague and indefinite.'" MPEP § 2173.02. The Examiner here has not done so. *See Office Action of Jan. 9, 2006 at p. 2.* Thus, there is no basis in the record to support a finding that the recited claim element is indefinite.

Because there is no basis in the record as to why the recited claim element is indefinite, the Board should overturn the indefiniteness rejection of Claim 22.

2. Claim language does not need to be as precise as possible, it needs to have only a reasonable degree of particularity and distinctness.

The fact that claim language may not be precise does not automatically render the claim indefinite under 35 U.S.C. § 112, second paragraph. MPEP § 2173.05(b) (citing *Seattle Box Co., v. Industrial Crating & Packing, Inc.*, 731 F.2d 818 (Fed. Cir. 1984)). Moreover, the United States Patent and Trademark Office does not condone using *per se* rules to make technical rejections under 35 U.S.C. § 112, second paragraph. MPEP § 2173.02. For example, the mere use of the phrase "such as" in a claim does not by itself render the claim indefinite. *Id.* Thus, the mere use of the term "including" should not by itself render a claim indefinite either.

The Examiner's focus when examining claims for compliance with the definiteness requirement of 35 U.S.C. § 112, second paragraph, is whether the claim meets the threshold requirements of clarity and precision, not whether more suitable language or modes of expression are available. MPEP § 2173.02. The Examiner should allow claims which define the patentable subject matter with a "*reasonable degree* of particularity and distinctness." *Id.* (emphasis added). Latitude in the manner of expression should be permitted even though the claim language is not as precise as the examiner might desire. *Id.*

Because the recited claim element meets a *reasonable degree* of particularity and distinctness, as discussed more below, the Board should overturn the indefiniteness rejection of Claim 22.

3. Claim 22 is definite because one skilled in the art would understand what is claimed when reading the claim in light of the specification.

The test for definiteness under 35 U.S.C. § 112, second paragraph, is whether "those skilled in the art would understand what is claimed when the claim is read in light of the specification." MPEP § 2173.02 (quoting *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576 (Fed. Cir. 1986)). In addition, definiteness of claim language must be analyzed,

not in a vacuum, but in light of: (1) the content of the particular application disclosure; (2) the teachings of the prior art; and (3) the claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made. MPEP § 2173.02. In this case, all of these factors show that the recited claim element meets the test for definiteness.

With regard to the first factor, the appellant's specification discusses network resources in at least 13 different areas. *See, e.g., Appellant's Specification as published, paras. 5, 7, 11, 12, 19, 41, 43, 44, 49, 64, 71, 84, and 90.* These areas disclose a variety of things regarding network resources, such as contributing them to the network, denominating internal tokens (credits) in the same network resources, requesting network resources, buying and selling network resources, and tracking and learning about available network resources. *See, e.g., id. at paras 11, 19, 43, and 71.* This extensive disclosure regarding network resources is unsurprising given that the essence of the appellant's invention is activities and transactions that take place on a network and therefore depend on network resources. Thus, the first factor supports a finding that the recited claim element is definite.

With regard to the second factor, computer networks have existed since the early 1970s, when the United States Department of Defense developed the Advanced Research Projects Agency Network (ARPANET), the world's first operational packet switching network and the origin of today's Internet. Since then, the Internet has become ubiquitous and a pivotal part of daily life. Thus, there is no doubt an extensive amount of prior art on networks and the resources on which they rely. Because network resources are a high-level aspect of computer networks (as opposed to, for example, the minutia of what individual bits in the header of a data packet represent), even prior art that provides only a high-level discussion of networks can nonetheless provide relevant information on network resources. Thus, the second factor also supports a finding that the recited claim element is definite.

With regard to the third factor, a person possessing the ordinary level of skill in the art of the appellant's invention would have at least a basic understanding of how computer networks operate and the resources they must have to operate effectively. As discussed above, network resources are a high-level aspect of the overall operation of a computer network. Thus, a person skilled in the art of computer networks would possess an understanding of network resources,

even if that person was not skilled in the lower-level minutia of how a computer network operates. Therefore, a person of ordinary skill in the art would be able to understand what is claimed by the recited claim element, especially when that claim element is read in light of the specification and the teachings of prior art. Overall, the third factor also supports a finding that the recited claim element is definite.

These three factors show that one skilled in the art of the appellant's invention would understand what is claimed by "characterized network resources including ..." when that claim element is read in light of the appellant's specification and the relevant prior art. Thus, the claim term contains a *reasonable degree* of particularity and distinctness and, more importantly, meets the test for definiteness set forth by the Federal Circuit. Accordingly, the Board should overturn the indefiniteness rejection of Claim 22.

C. Conclusion

In view of the foregoing arguments, Claim 22 meets the definiteness requirements of 35 U.S.C. § 112, second paragraph, and Claims 22 and 24-38 are patentable over Saylor and all proposed modifications of Saylor.

The Commissioner is authorized to charge any additional fees which may be required, including petition fees and extension of time fees, to Deposit Account **No. 07-1896** referencing Attorney Docket **No. 350176-991101**. This paper is submitted in triplicate.

Respectfully submitted,

DLA Piper US LLP

Dated: January 3, 2007

By: _____

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CLAIMS APPENDIX

1 (withdrawn). A distributed system for publishing and retrieving content in a network, comprising:

a plurality of computer systems connected together in a peer-to-peer fashion;

one or more agent applications associated with the computer systems for allowing the computer systems to publish and retrieve content from the network by initiating peer-to-peer interactions across the network involving given transaction costs.

2 (withdrawn). The distributed system of Claim 1, wherein the computer systems have characterized network resources that can be contributed to the network in return for a predetermined amount of credits that are accumulated by those computer systems contributing resources to the network such that the computer systems can exchange the credits for performing interactions across the network.

3 (withdrawn). The distributed system of Claim 2, wherein the network resources include any of disk space, bandwidth, and CPU processing cycles.

4 (withdrawn). The distributed system of Claim 2, wherein the interactions are performed by the agent applications.

5 (withdrawn). The distributed system of Claim 2, wherein credits are purchased directly without contributing resources to the network.

6 (withdrawn). The system of Claim 1, wherein each interaction across the network involves a transaction cost.

7 (withdrawn). The system of Claim 6, wherein the interactions are performed by the agent applications.

8 (withdrawn). The distributed system of Claim 1, further comprising a credit server for maintaining a database of previously used credits and for authorizing a valid credit transaction between interacting agent applications within the network.

9 (withdrawn). The distributed system of Claim 1, wherein the agent applications comprise one or more client agent applications for enabling the computing systems access and interact with the agent applications in the network, one or more broker agent applications for performing brokering transactions between the agent applications in the network, one or more tracker agent applications for providing a listing of available resources within the network, one or more reputation agent applications for tracking the reputations of the computer systems in the network, and one or more payment agent applications for validating credit transactions within the network.

10 (withdrawn). The distributed system of Claim 9, wherein the one or more broker agent applications directly provide brokered network resources to requesting computer systems within the network.

11 (withdrawn). The distributed system of Claim 9, wherein the one or more tracker agent applications include one or more metatracker agent applications for maintaining the network location of the one or more active broker agent applications and a listing of the associated resources that those active broker agent applications broker within the network, one or more content tracker agent applications for storing dinodes to locate data blocks constituting a published data file on the network, and one or more publication tracker agent applications for recording storage locations on particular computing systems where the data blocks are stored.

12 (withdrawn). The distributed system of Claim 11, wherein the tracker agent applications maintain public information relating to the various agent applications within the network.

13 (withdrawn). The distributed system of Claim 9, wherein the client, broker, tracker, reputation, and payment agent applications are integrated as a single agent application.

14 (withdrawn). The distributed system of Claim 9, wherein the peer-to-peer interactions are performed in accordance with a micropayment transaction process.

15 (withdrawn). The distributed system of Claim 14, wherein the micropayment transaction process includes causing the client agent application associated with a first computing system to

offer a given amount of credits to a broker application associated with a second computing system for performing the transaction within the network, causing the broker application to loan to the client application an amount of credits equal to the offered amount of credits to enable the first and second computing systems to engage in the transaction, causing the payment agent to verify the offered credits to insure that the offered credits have not been previously spent in a prior transaction and withdraw the offered credits from future use within the network, and if verified, causing the broker application to complete the transaction and retract the loaned credits in return for new credits that are associated with the second computing system in an amount equal to the amount of offered credits.

16 (withdrawn). The distributed system of Claim 11, wherein the broker agent applications publish content to the network by receiving an original file to be published to the network, dissecting the original file into a series of pieces of the original file, further dissecting each piece of the original file into a predetermined number of file blocks, generating a respective block identification tag for each of the file blocks, and storing the file blocks on one or more storage block servers within the network.

17 (withdrawn). The distributed system of Claim 16, wherein the broker agent applications further generate a sharemap for the original file that describes how to reassemble the pieces of the original file from the file blocks and the original file from the pieces of the original file.

18 (withdrawn). The distributed system of Claim 17, wherein portions of the sharemap are stored at one or more dinodes within the network, and wherein the content tracker maintains information about the dinodes within the network so that the original file can be reassembled.

19 (withdrawn). The distributed system of Claim 16, wherein the file blocks are retrieved in parallel to reassemble the original file.

20 (withdrawn). The method of Claim 19, wherein only a portion of the file blocks are needed to reassemble the original file.

21 (withdrawn). The distributed system of Claim 1, wherein the system uses a protocol for transmitting messages between the agents, the protocol including a transport layer for moving secure data between the agents, an encryption and authentication layer for encrypting and decrypting the data, a conversation layer for associating initiating messages with their responding messages counterparts, and a transaction layer for enabling the interactions between the agents in the network.

22 (previously presented). A distributed system for publishing and retrieving content in a network, comprising:

a plurality of computer systems connected together in a peer-to-peer fashion and having characterized network resources including any of disk space, bandwidth, and CPU cycles for performing peer-to-peer interactions across the network, wherein the network resources can be contributed to the network by one or more contributing computer systems in return for a predetermined amount of credits, wherein the credits are accumulated by the contributing computer systems contributing network resources to the network, and wherein the contributing computer systems can exchange the credits with other contributing computer systems for performing peer-to-peer interactions across the network using the network resources; and

one or more agent applications distributed across the network and associated with the computer systems for allowing the computer systems to publish content to and retrieve content from the network by initiating the peer-to-peer interactions across the network between the agent applications.

23 (canceled).

24 (previously presented). The distributed system of Claim 22, wherein each interaction across the network involves a transaction cost.

25 (original). The distributed system of Claim 22, further comprising a credit server for maintaining a database of previously used credits and for authorizing a valid credit transaction between interacting agent applications within the network.

26 (original). The distributed system of Claim 22, wherein the agent applications comprise one or more client agent applications for enabling the computing systems access and interact with the agent applications in the network, one or more broker agent applications for performing brokering transactions between the agent applications in the network, one or more tracker agent applications for providing a listing of available resources within the network, one or more reputation agent applications for tracking the reputations of the computer systems in the network, and one or more payment agent applications for validating credit transactions within the network.

27 (original). The distributed system of Claim 26, wherein the one or more broker agent applications directly provide brokered network resources to requesting computer systems within the network.

28 (original). The distributed system of Claim 26, wherein the one or more tracker agent applications include one or more metatracker agent applications for maintaining the network location of the one or more active broker agent applications and a listing of the associated resources that those active broker agent applications broker within the network, one or more content tracker agent applications for storing dinodes to locate data blocks constituting a published data file on the network, and one or more publication tracker agent applications for recording storage locations on particular computing systems where the data blocks are stored.

29 (original). The distributed system of Claim 28, wherein the tracker agent applications maintain public information relating to the various agent applications within the network.

30 (original). The distributed system of Claim 26, wherein the client, broker, tracker, reputation, and payment agent applications are integrated as a single agent application.

31 (original). The distributed system of Claim 26, wherein the peer-to-peer interactions are performed in accordance with a micropayment transaction process.

32 (original). The distributed system of Claim 31, wherein the micropayment transaction process includes causing the client agent application associated with a first computing system to offer a given amount of credits to a broker application associated with a second computing

system for performing the transaction within the network, causing the broker application to loan to the client application an amount of credits equal to the offered amount of credits to enable the first and second computing systems to engage in the transaction, causing the payment agent to verify the offered credits to insure that the offered credits have not been previously spent in a prior transaction and withdraw the offered credits from future use within the network, and if verified, causing the broker application to complete the transaction and retract the loaned credits in return for new credits that are associated with the second computing system in an amount equal to the amount of offered credits.

33 (original). The distributed system of Claim 28, wherein the broker agent applications publish content to the network by receiving an original file to be published to the network, dissecting the original file into a series of pieces of the original file, further dissecting each piece of the original file into a predetermined number of file blocks, generating a respective block identification tag for each of the file blocks, and storing the file blocks on one or more storage block servers within the network.

34 (original). The distributed system of Claim 33, wherein the broker agent applications further generate a sharemap for the original file that describes how to reassemble the pieces of the original file from the file blocks and the original file from the pieces of the original file.

35 (original). The distributed system of Claim 34, wherein portions of the sharemap are stored at one or more dinodes within the network, and wherein the content tracker maintains information about the dinodes within the network so that the original file can be reassembled.

36 (original). The distributed system of Claim 33, wherein the file blocks are retrieved in parallel to reassemble the original file.

37 (original). The distributed system of Claim 36, wherein only a portion of the file blocks are needed to reassemble the original file.

38 (original). The distributed system of Claim 22, wherein the system uses a protocol for transmitting messages between the agents, the protocol including a transport layer for moving

secure data between the agents, an encryption and authentication layer for encrypting and decrypting the data, a conversation layer for associating initiating messages with their responding messages counterparts, and a transaction layer for enabling the interactions between the agents in the network.

39 (withdrawn). A distributed system for publishing and retrieving content in a network, comprising:

a plurality of computer systems connected together in a peer-to-peer fashion and having characterized network resources that can be contributed to the network in return for a predetermined amount of credits that are accumulated by those computer systems contributing resources to the network such that the computer systems can exchange the credits for performing interactions across the network; and

a global pool of agent applications distributed across the network for allowing the computer systems to publish and retrieve content from the network by initiating the peer-to-peer interactions across the network.

40 (withdrawn). The distributed network of Claim 39, wherein the network resources include any of disk space, bandwidth, and CPU processing cycles.

41 (withdrawn). The distributed network of Claim 39, wherein each interaction across the network involves a transaction cost.

42 (withdrawn). The distributed system of Claim 39, further comprising a credit server for maintaining a database of previously used credits and for authorizing a valid credit transaction between interacting agent applications within the network.

43 (withdrawn). The distributed system of Claim 39, wherein the global pool of agent applications comprises one or more client agent applications for enabling the computing systems access and interact with the agent applications in the network, one or more broker agent applications for performing brokering transactions between the agent applications in the network, one or more tracker agent applications for providing a listing of available resources within the network, one or more reputation agent applications for tracking the reputations of the computer

systems in the network, and one or more payment agent applications for validating credit transactions within the network.

44 (withdrawn). The distributed system of Claim 40, wherein the one or more broker agent applications directly provide brokered network resources to requesting computer systems within the network.

45 (withdrawn). The distributed system of Claim 43, wherein the one or more tracker agent applications include one or more metatracker agent applications for maintaining the network location of the one or more active broker agent applications and a listing of the associated resources that those active broker agent applications broker within the network, one or more content tracker agent applications for storing dinodes to locate data blocks constituting a published data file on the network, and one or more publication tracker agent applications for recording storage locations on particular computing systems where the data blocks are stored.

46 (withdrawn). The distributed system of Claim 45, wherein the tracker agent applications maintain public information relating to the various agent applications within the network.

47 (withdrawn). The distributed system of Claim 43, wherein the client, broker, tracker, reputation, and payment agent applications are integrated as a single agent application.

48 (withdrawn). The distributed system of Claim 43, wherein the peer-to-peer interactions are performed in accordance with a micropayment transaction process.

49 (withdrawn). The distributed system of Claim 48, wherein the micropayment transaction process includes causing the client agent application associated with a first computing system to offer a given amount of credits to a broker application associated with a second computing system for performing the transaction within the network, causing the broker application to loan to the client application an amount of credits equal to the offered amount of credits to enable the first and second computing systems to engage in the transaction, causing the payment agent to verify the offered credits to insure that the offered credits have not been previously spent in a prior transaction and withdraw the offered credits from future use within the network, and if

verified, causing the broker application to complete the transaction and retract the loaned credits in return for new credits that are associated with the second computing system in an amount equal to the amount of offered credits.

49 (withdrawn). The distributed system of Claim 45, wherein the broker agent applications publish content to the network by receiving an original file to be published to the network, dissecting the original file into a series of pieces of the original file, further dissecting each piece of the original file into a predetermined number of file blocks, generating a respective block identification tag for each of the file blocks, and storing the file blocks on one or more storage block servers within the network.

50 (withdrawn). The distributed system of Claim 49, wherein the broker agent applications further generate a sharemap for the original file that describes how to reassemble the pieces of the original file from the file blocks and the original file from the pieces of the original file.

51 (withdrawn). The distributed system of Claim 50, wherein portions of the sharemap are stored at one or more dinodes within the network, and wherein the content tracker maintains information about the dinodes within the network so that the original file can be reassembled.

52 (withdrawn). The distributed system of Claim 50, wherein the file blocks are retrieved in parallel to reassemble the original file.

53 (withdrawn). The distributed system of Claim 52, wherein only a portion of the file blocks are needed to reassemble the original file.

54 (withdrawn). The distributed system of Claim 39, wherein the system uses a protocol for transmitting messages between the agents, the protocol including a transport layer for moving secure data between the agents, an encryption and authentication layer for encrypting and decrypting the data, a conversation layer for associating initiating messages with their responding messages counterparts, and a transaction layer for enabling the interactions between the agents in the network.

55 (withdrawn). A method for performing micropayment transactions in a distributed network, comprising the steps of:

offering a given amount of credits to a first party for performing a transaction within the network;

loaning to a second party an amount of credits equal to the offered amount of credits to enable the first and second parties to engage in the transaction;

verifying the offered credits to insure that the offered credits have not been previously spent in a prior transaction and withdrawing the offered credits from future use; and

if verified, completing the transaction and retracting the loaned credits to the second party in return for new credits that are associated with the first party in an amount equal to the amount of offered credits.

56 (withdrawn). The method of Claim 55, wherein the transaction is a direct transaction.

57 (withdrawn). The method of Claim 56, wherein during the direct transaction a request for network resources is transmitted directly to a broker agent that can fulfill the request by brokering the requested network resources.

58 (withdrawn). The method of Claim 55, wherein the transaction is an indirect, transparent transaction.

59 (withdrawn). The method of Claim 58, wherein during the indirect, transparent transaction a request for network resources is transmitted directly to one or more intermediate broker agents and wherein those intermediate broker agents locate a particular provisioning broker agent that can fulfill the request for the least cost and transmit the request to that provisioning broker agent to fulfill the request by brokering the requested network resources.

60 (withdrawn). A method for performing a microaccount transaction in a distributed network, comprising the steps of:

initiating a transaction session between a requesting party and a fulfilling party within the network where the parties determine a financial relationship between them for guiding the transaction;

creating a token for use in a transaction between the parties, the transaction having a given cost, and associating a digital signature with the token;

verifying the authenticity of the token and associating an appropriate denomination with the token equal to the given cost for fulfilling the transaction;

fulfilling the transaction in exchange for the token; and

withdrawing the token from future use and associating a new token in an amount equal to the given cost with the fulfilling party.

61 (withdrawn). The method of Claim 60, wherein the initiating step includes exchanging a shared secret encryption key between the parties.

62 (withdrawn). The method of Claim 60, wherein the transaction is a direct transaction.

63 (withdrawn). The method of Claim 62, wherein during the direct transaction a request for network resources is transmitted directly to a broker agent that can fulfill the request by brokering the requested network resources.

64 (withdrawn). The method of Claim 60, wherein the transaction is an indirect, transparent transaction.

65 (withdrawn). The method of Claim 64, wherein during the indirect, transparent transaction a request for network resources is transmitted directly to one or more intermediate broker agents and wherein those intermediate broker agents locate a particular provisioning broker agent that can fulfill the request for the least cost and transmit the request to that provisioning broker agent to fulfill the request by brokering the requested network resources.

66 (withdrawn). A method for publishing content to a distributed network, comprising the steps of:

receiving an original file to be published to the network;

dissecting the original file into a series of pieces of the original file;

further dissecting each piece of the original file into a predetermined number of file blocks;

generating a respective block identification tag for each of the file blocks; and

storing the file blocks on one or more storage block servers within the network.

67 (withdrawn). The method of Claim 66, further comprising the steps of generating a sharemap for the original file that describes how to reassemble the pieces of the original file from the file blocks and the original file from the pieces of the original file.

68 (withdrawn). The method of Claim 67, wherein portions of the sharemap are stored at one or more dinodes within the network.

69 (withdrawn). The method of Claim 66, wherein the block identification tag is generated by processing each file block with a cryptographic hash algorithm.

70 (withdrawn). The method of Claim 66, wherein the block servers comprise available storage space on one or more allocated disk drives on one or more computer systems associated with the network.

71 (withdrawn). The method of Claim 66, wherein the file blocks are retrieved in parallel to reassemble the original file.

72 (withdrawn). The method of Claim 71, wherein only a portion of the file blocks are needed to reassemble the original file.

73 (withdrawn). A protocol for transmitting messages between agents in a distributed network, comprising:

a transport layer for moving secure data between the agents;

an encryption and authentication layer for encrypting and decrypting the data;

a conversation layer for associating initiating messages with their responding messages counterparts; and

a transaction layer for enabling interactions between the agents in the network.

74 (withdrawn). The protocol of Claim 73, wherein the transport layer utilizes TCP/IP to move secure data between the agents.

75 (withdrawn). The protocol of Claim 73, wherein the conversation layer assigns a nonce to an initiating message and monitors responding messages for the occurrence of the nonce and associating the messages whose nonces match.

76 (withdrawn). The protocol of Claim 75, wherein the occurrence of the nonce in a responding message is in a hashed format.

EVIDENCE APPENDIX

NONE

RELATED PROCEEDINGS APPENDIX

NONE